

a protection circuit disposed adjacent to at least said one of said active areas, and comprising:

a first impurity region of said one conductivity type disposed adjacent to said at least one of said active areas, wherein said first impurity region is a base region of a bipolar transistor,

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C1 a second impurity region of a second conductivity type opposite to said one conductivity type disposed adjacent to said first impurity region, connected to said first terminal, wherein said second impurity region is one of an emitter region or a collector region of said bipolar transistor; and

a third impurity region of said other conductivity type connected to said second terminal, wherein said third impurity region is the other of said emitter region or said collector region of said bipolar transistor.

3. (*Thrice Amended*) The semiconductor device as set forth in claim 2, wherein said first impurity sub-region comprises:

C2 a first portion contiguous to said second impurity sub-region; and
a second portion heavier in dopant concentration than said first portion and connected to said second terminal.

6. (*Thrice Amended*) The semiconductor device as set forth in claim 5, wherein said first impurity sub-region comprises:

C3 a first portion contiguous to said second impurity sub-region; and

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C3 a second portion heavier in dopant concentration than said first portion and connected to said second terminal.

C4 14. (*Thrice Amended*) The semiconductor device as set forth in claim 1, wherein said first terminal is a signal output terminal, and said circuit component is an output transistor.

15. (*Thrice Amended*) The semiconductor device as set forth in claim 1, wherein said first terminal is a signal input and output terminal, and said circuit component is an output transistor comprising a portion of an input and output circuit connected to said first terminal.

C5 17. (*Twice Amended*) A semiconductor device comprising:
a semiconductor substrate of a first conductivity type;
a plurality of active areas disposed in a portion of said semiconductor substrate;
at least one shallow trench isolation region disposed between said active areas;
a first terminal connected to one of said active areas;
a second terminal connected to another of said active areas;
a circuit component connected between said first terminal and said second terminal; and
a protection circuit disposed adjacent to at least said one of said active areas, said protection circuit comprising:

a first impurity region of said first conductivity type disposed adjacent to at least one of said active areas, wherein said first impurity region is a base region of a bipolar transistor,

a second impurity region of a second conductivity type opposite to said first conductivity type disposed in said active area connected to said first terminal, wherein said second impurity region is one of an emitter region or a collector region of said bipolar transistor; and

a third impurity region of said second conductivity type connected to said second terminal, disposed in another portion of said semiconductor substrate, wherein said third impurity region is the other of said emitter region or said collector region of said bipolar transistor.

21. (Twice Amended) The semiconductor device as set forth in claim 20, wherein said first impurity sub-region further comprises a second portion heavier in dopant concentration than said first portion and connected to said second terminal.

29. (Twice Amended) The semiconductor device as set forth in claim 17, wherein said first terminal is a signal output terminal and said circuit component is an output transistor.

30. (Twice Amended) The semiconductor device as set forth in claim 17, wherein said first terminal is a signal input and output terminal, and said circuit component is an output transistor comprising a portion of an input and output circuit connected to said first terminal.